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ABSTRACT

Many previous studies have found that daily life events influence community residents' perceived quality of life, which refers to the relative goodness of life as evaluated subjectively. A subsample population of 539 older residents, aged 55 and over, were interviewed in their homes. A 60-item scale was devised to measure the effects of "off-time" events on the quality of their lives. The measures assessed well-being and psychological adjustment. Major findings suggest that the stressfulness of life events for older persons may lie in their timing rather than in their frequency. (Author/BdW)

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Off-Time Events and Life Quality of Older Adults

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Many previous studies have found that daily life events influence community residents' perceived quality of life (PQOL) (e.g. Myers, Linderthal, & Pepper, 1974). PQOL refers to the relative "goodness" of life as evaluated subjectively. How PQOL may be affected by life events can depend on a variety of factors. Proposed moderators of events have included frequency with which events occur (Dohrenwend, 1973), their "magnitude," or degree of readjustment required (Holmes & Masuda, 1974; Holmes & Rahe, 1967), and their desirability (Gersten, Langner, Eisenberg, & Orzeck, 1974; Myers, et al., 1974; Zautra & Simons, in press). However, for residents middle-aged and older, the timing of these events in the life cycle may be a more important consideration (Lowenthal, Thurnher, & Chiriboga, 1975; Neugarten, 1970), and the stressfulness of events could depend on when they occur in the life cycle. Older adults may evaluate life based on the degree to which it conforms to a psychological schedule for personal, social and economic development (Lowenthal, et. al., 1975). This time schedule represents the person's interpretation of cultural cues regarding the types of events which should or actually do occur at a given age. Life events that deviate from the norm for a given age group occur "off time" and could be more traumatic than "on time" events, or those which can be expected at certain points in life. A serious illness, for example, may be less psychologically distrubing for the older person than for the younger, since the event would be more timely for the older individual (Zarit & Kahn, 1975). It has even been proposed that some negative events, if on time, may not be that stressful (Neugarten, 1970) although the effects of

off-time versus on-time events have not been examined fully (Eisdorfer & Wilkie, 1977; Lowenthal, et. al., 1975). This study explores how off-time events may influence the PQOL of older community residents aged 55 and above. Two main questions will be addressed, (1) do off-time events independently affect PQOL, and, if so, (2) which kinds of off-time events may be more impactful?

Positive and negative events will be assessed separately in the present study, since some investigations have found these events to influence PQOL in different ways (e.g., Gersten, et. al., 1974; Myers, et. al., 1974; Zautra & Goodhart, in press; Zautra & Simons, in press). PQOL may be enhanced by some types of positive experiences (e.g. Bandura, 1977; Herzberg, 1976; White, 1959; Zautra & Simons, in press) or diminshed by undesirable events (Vinokur & Selzer, 1975) such as environmental loss (Rowland, 1977). It should be noted that this research is primarily exploratory and correlational. Its major intent is to investigate patterns of relationships between variables and not to determine causality.

Methods

Respondents consisted of a subsample of older residents (aged 55 and above) interviewed as part of a major household survey of PQOL in three Arizona communities (total n=539). Probability sampling techniques (Sudman, 1976) had been used to obtain a representative sample of the approximately 250,000 residents in the Tri-City area. Survey respondents had been interviewed at home for an average of one hour and fifteen minutes by twenty-five graduate and undergraduate students of Arizona State University. The completion rate was 85% of the originally selected sample. The present investigation studied community residents aged 55 and above who were

divided into a younger group, 55 to 64 years of age (n=54) and an older group 65 years and above (n=75).

The number of life events reported was measured with a 64-item version of the Social Readjustment Rating Schedule (Holmes & Rahe, 1967). From this inventory, a 60-item "off-time events scale" was devised. Off-time events were defined as experiences which deviated from those reported by the majority of a respondent's age peers. To construct the off-time events scale, the percentage of respondents who reported the occurrence of each of the 60 event items was first computed. Percentages were calculated separately for two age groups, 55 to 64 years and 65 years and older. Second, each event was given a weight based on the percentage of respondents in each age group who reported the event. Incrementally higher weights were given to events reported by proportionately fewer respondents. The higher the weight, the more the event was considered off-time for the given age group. Third, weighted events were summed into two measures of positive off-time and negative off-time events, respectively. An event's desirability had been determined a priori. Finally, the positive and negative off-time event items were divided a priori into five categories of life experiences assumed to represent primary concerns that influence subjective ratings of life quality (see Andrews & Withey, 1976). These areas were (1) marriage and family relations, (2) social status as affected by educational, occupational and financial changes, (3) personal accomplishments and frustrations, (4) recreation and social participation, and (5) physical illness and death. The illness and death category consisted solely of negative life events related to the physical

health of the respondent and family members, and the death of significant others. Weighted events in each category were summed to assess frequency of off-time change in the five life areas.

Dependent criteria of PQOL were measures of psychological adjustment and measures of life satisfaction. Consideration of both criteria were thought necessary to assess PQOL adequately (Dohrenwend, 1978; see also Jahoda, 1958). Adjustment criteria consisted of (1) a 22-item Psychiatric Screening Inventory (Langer, 1972) which measures number of psychological symptoms, and (2) the Negative Affect Scale (Bradburn, 1969) which assesses level of negative affect or mood according to the number of recently experienced negative feeling states reported by respondents. Criteria of life satisfaction included (1) Life #3 (Andrews & Withey, 1976) and (2) the Positive Affect Scale (Bradburn, 1969). Life #3 is a subscale of the Perceived Quality of Life Inventory (Andrews & Withey 1976) and assesses satisfaction with life as a whole. The Positive Affect Scale measures level of positive affect by noting the frequency of recently experienced pleasurable feeling states reported by respondents.

Data Analyses. Multiple regression techniques were used to analyze data. Separate analyses were performed for residents between 55 and 64 years and for those aged 65 years and older. Separate equations were also computed for each dependent measure. To assess whether off-time events independently influenced the criteria, the measures of total positive and negative off-time events were examined with hierarchical techniques which can be used to statistically control the effects of covariates of the independent measures. Frequency of "life change in general" was expected to covary with

frequency of off-time events. Life change in general refers to the total number of events reported by respondents and was appraised by summing unweighted positive and negative items from the off-time events scale. These unweighted positive and negative events were forced into the regression equation first, followed by the measures of positive and negative off-time events. This hierarchical procedure sought to partial out variance due to frequency of life change and permit the examination of the independent effects of an event's timing in the life cycle.

Additional multiple regression analyses were performed to examine the types of off-time events related to PQOL. A combination of hierarchical and step-wise methods of inclusion were employed. Again, unweighted positive and negative life events were forced into the regression equation first to partial out the effects of general life change from subsequently entered variables. Next, measures of positive and negative off-time events in the five life areas were introduced using step-wise procedures. Step-wise procedures enter variables in an order which depends on the strength of each variable's association with the criterion after partialling out the effects of other independent variables.

Results

Significant multiple R's were obtained for the Positive Affect measure and for the two adjustment measures for both age groups of community members. Events, off-time or otherwise, were not associated with the Life #3 measure for either group of respondents. Multiple correlations are presentd in Table 1.

Insert Table 1 about here

Younger Community Members. Results of analyses for the younger respondents aged 55 to 64 are presented in Table 2 and Table 3. Table 2 below reports findings from analyses which examined whether off-time events were related to PQOL independently of frequency of life change.

Insert Table 2 about here

These findings indicate that the number of life events reported was not in itself associated with ratings of PQOL. However, the occurrence of off-time events was significantly related to three of the four dependent measures after partialling out the effects of frequency of life change. Negative off-time events were associated with diminished positive affect, and with increased negative affect and psychiatric symptoms. Positive off-time events affected two of the PQOL criteria, positive affect and psychiatric symptoms, again after removing the influence of total life change. Significant increases in positive affect and fewer psychological symptoms were found to correspond to reports of more frequent positive off-time events.

Results of analyses to assess types of positive and negative off-time events which may affect PQOL are presented in Table 3.

Insert Table 3 about here

The findings indicate that of all negative off-time events, difficulties in marriage and family relations were associated with a generally worsened emotional state as evidenced by decrements in positive affect and increased negative affect. Positive events in the marriage and family domain, however, seemed to significantly

decrease negative affect. Findings further suggest that improvements in social status from positive educational, occupational and financial occurrences were associated with greater positive affect. Moreover, decreased recreation and social participation appeared to correspond to increased levels of psychological distress.

Older Community Members. Table 4 and Table 5 report results for community residents aged 65 and older. Table 4 presents findings regarding the independent effects of off-time events on PQOL.

Insert Table 4 about here

Like younger respondents, positive events which deviated from the norm were related to greater positive affect for community members aged 65 and older. However, unlike the younger residents, the psychological adjustment of older respondents was related independently to both negative life change and to negative off-time events. That is, negative life change accounted for a significant portion of the variance in adjustment, and after removing the effects of negative life change, negative off-time events also contributed significantly to predicting the adjustment criteria.

Types of off-time events associated witn the PQOL criteria are presented in Table 5.

Insert Table 5 about here

Findings suggest that greater positive affect is related to positive changes in recreational pursuits and social participation. Interestingly, these positive events were also associated with decreased reports of psychological symptoms. Both negative affect

and psychological symptoms increased with the number of personal frustrations reported. In addition, psychological distress seemed to be affected by difficulties concerning one's social status.

It should be noted for both age groups that positive and negative off-time events were not associated with some dependent measures when the events were considered in toto but were associated with the measures when broken down into categories. For example, for respondents aged 55 to 64, negative mood was affected by atypical positive marriage and family events but not by off-time positive events as a whole. Certain types of positive (or negative) off-time events seem to have stood out as being particularly salient for respondents even though these events in sum do not affect PQOL. Alternately, it was found that some measures of PQOL were affected by positive or negative off-time events when events were analyzed as a group but not when events were broken down into categories. For instance, for younger respondents, positive off-time events in general affected the number of symptoms reported but symptoms were not related to any particular category of these events. Perhaps for some aspects of PQOL, the cumulative impact of positive or negative off-time events maybe more important than a specific type of event per se.

Discussion

The findings support the hypothesis that the timing of events in the life cycle affects the PQOL of older community residents. The results clearly deviate from those of other life events research which indicate that frequency of life change alone or other factors may be sufficient to account for variations in well-being

(e.g., Holmes & Rahe, 1967). Events which deviate from the norm at a given age level may exert stronger effects on PQOL than more commonly expected occurrences. For example, negative changes, if off-time, cannot readily be anticipated nor, therefore, prepared for adequately. Furthermore, it is conceivable that these events could strain the individuals relations with others in that peers, not having experienced the event themselves, may not be sufficiently empathic nor able to provide adequate assistance. Moreover, adaptation-level theory (Brickman & Campbell, 1971) might predict that off-time positive events would have an expecially favorable impact on PQOL. People are thought to judge the favorableness of their current life experiences by comparing them against a standard or baseline of their own previous experiences and those of others. Positive events which deviate appreciably from this baseline, i.e. which are significantly more favorable than might be anticipated given one's age level, thus, might affect PQOL more than ordinary positive events. (Zautra & Goodhart, in press).

Positive Off-Time Events

In addition to augmenting life quality in general, the present findings suggest that positive off-time events serve a preventative function for community members between 55 to 64 years of age since reports of these events were associated with lower levels of psychological symptomatology. It is interesting to interpret the findings for positive off-time events in light of the fact that reports of positive events generally tend to decline with age (Zautra, Kochanowicz, & Goodhart, in press). What effect the diminishing rate of positive experiences has on PQOL is a source of continued

theoretical dispute. One position, disengagement theory (Cumming, 1976), posits that successful adjustment in later years depends on effective disengagement, or the individual's withdrawal from her or his social system. The well adjusted older person, then, would be expected to have fewer life events, both positive and negative, and the events that did occur should have little impact on PQOL. In contrast, "activity" positions (E. G. Lemon, Bengtson, & Peterson, 1976) view the absence of change, particularly positive change, as an important source of distress in later life stages. Activity, in general, and participation in pleasurable social events, in particular, are thought to be highly important for well-being in later years (Beisser, Feldman, & Egelhoff, 1972; Lowenthal, 1975). Both viewpoints received some support from the present findings. Off-time positive events were related to positive affect but not to the Life #3 measure of life satisfaction. This suggests that the emotional state of older community residents may be affected by atypical positive events, in partial support of activity theory, but that evaluations of overall life satisfaction may be made independently of the ups and downs of daily life, consistent with a disengagement hypothesis. It should be noted that overall life satisfaction has been found to relate to positive events for community residents under 55 years of age (note 1).

Negative Off-Time Events

Results indicate that community members aged 65 and above may be particularly vulnerable to the effects of negative life events. Both negative life change and negative off-time events were significantly associated with increased negative affect and psycholog-

ical symptoms. These findings do not support the notion (Neugarten, 1970) that negative occurrences if expected may not be that stressful for older individuals. Since the frequency of negative life experiences tends to decline steadily with age (Holmes & Holmes, 1970; Zautra, et. al., in press), the undesirable experiences that do occur must be particularly distressing to the elderly. Stressful events may adversely affect the PQOL of older individuals because their resources for coping with the stressors are more limited (Eisdorfer & Wilkie, 1977). In later years, persons tend to have fewer social roles, less differentiated behavior and be more dependent (Caudill, 1958). For the younger respondents, only negative off-time events seemed to affect psychological adjustment. Perhaps adults 55 to 64 years possess sufficient resources to cope with most negative life experiences except those which deviate appreciably from norm for this age group.

Types of Off-Time Events

Different types of off-time experiences were related to PQOL for the two age groups. This suggests that community members have particular areas of vulnerability and special sources of strength at different ages. These vulnerabilities and strengths suggest potentially useful directions for community and psychological interventions designed to augment life satisfaction or maintain the psychological well-being of older adults.

Off-Time Marriage and Family Events

For respondents between 55 to 64 , relations with spouse and family members seem to be especially important. Difficulties with these relations appeared to have a pervasive negative impact on the emotional state. However, while conflicts within marriage and fam-

ily seemed to make respondents more unhappy, these conflicts did not appear to produce psychological difficulties. Futhermore, unexpected positive events in the marriage and family domain may decrease negative affect, which indicates that meaningful family involvments serve a preventative function by diminishing negative affect from other unpleasant experiences in life. It is interesting that marriage and family events did not seem to play a part in the PQOL or respondents aged 65 and older. Most of these events, whether positive or negative, were reported with relative infrequency by this age group. Perhaps relations between the aged person and her or his family are highly stable. However, it seems more likely that the aged person has limited contact with family due to the death of or physical separation from family members. This might make marriage and family relations play a rather insignificant role in PQOL late in life.

Off-Time Social Status Events

Off-time events with consequences for the respondent's social status were related to the PQOL of both age groups but the pattern of these relationships differed for the younger and older respondents. For younger respondents, off-time positive events tended to increase the number of pleasurable feeling states reported. These events pertained to achievements in occupation, education and self-development. This finding indirectly supports the views of other researchers (e.g., Lowenthal, et. al., 1975) who claim that it is the absence of change rather than excessive amounts of change in social status that diminishes the PQOL of older individuals. The present results suggest that deviations from the typical pattern

of non-progress in the social status sphere may have a favorable impact on PQOL in later years.

For community members 65 years of age and older, negative off-time changes in social status were associated with increased reports of psychological distress. The events in this category pertained mainly to negative changes on the job (with one event relating to financial reversals), which suggests that elderly employed respondents might find threats to job security, conflicts with superiors and financial difficulties particularly disturbing. Individuals who still work this late in life may do so for economic reasons or because they derive a major part of their personal worth and life satisfaction from their job. In any case, these late-life workers might find adversity in the occupational sphere to be an especially salient source of difficulty.

Off-Time Recreation and Social Participation Events

The two groups of older adults reported similar frequencies of social and recreational involvements with decreased activity being less common (and less timely) for both groups. However, the effects of off-time changes in these activities differed for persons aged 55 to 64 and those aged 65 and older, which indicates that these activities may serve different functions as one moves from late middle-age to more advanced years. For community residents between 55 to 64, decreases in social participation and recreation may adversely affect psychological well-being. Individuals who diminish their social and liesure involvements may be cutting themselves off from important psychological benefits enjoyed by the majority of their age peers. For community residents 65 years and older, greater participation in social and recreational pursuits

seemed to increase enjoyment of life on a day-to-day basis. Examples of these pursuits included learning a hobby, meeting new friends, and serving in voluntary organizations. Of particular interest was the finding that these activities corresponded with decreased reports of psychological difficulties which suggests that sustaining or increasing one's recreational and social involvements may prevent the development of psychological problems later in life. Of course, given the correlational nature of the study, it is possible that the direction of causality may be reversed in reality and that unhappier and less adjusted older individuals withdraw from social and recreational participation. Further research into the causality question might clarify the role that these involvements play in the PQOL of senior community residents.

Off-Time Personal Accomplishments and Frustrations

For community members aged 65 and older, personal frustrations seemed to have a strong adverse impact on PQOL. Increases in frequency of embarassment, boredom, frustration, inadequacy, and psychological troubles appeared to worsen the general emotion and psychological state of the elderly respondent. The fact that these types of events do not appear to affect PQOL until after age 65 suggests that maintaining a sense of personal competence, coping with potentially unpleasant and frustrating circumstances, and avoiding psychological difficulties may increase in importance as one grows older.

In sum, the results may provide some helpful insights regarding the salience of different aspects of the life experience in later years and suggest some areas for interventions to augment the PQOL of senior community members. It should be stressed, however,

that findings must be interpreted cautiously. The correlational nature of this study does not permit unambiguous statements to be made about the relationships. Furthermore, special features of the particular sample and the geographic location of the study might have influenced results. Further research should be undertaken to crossvalidate the present findings with other samples of older community residents.

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Off-time Events and Life Quality of Older Adults

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Description of Measures and Tables

Independent Measures

A 60-item off-time events scale was constructed from a life events inventory used to survey life quality in three Arizona communities. Off-time events were experiences that deviated from those reported by the respondent's age peers. Independent variables were the following measures of off-time events:

1. Positive off-time events
2. Negative off-time events
3. Off-time events in five life areas (marriage and family relations, social status, personal accomplishments and frustrations, recreation and social participation and illness and death).

Weights were assigned to events to represent the degree of their deviation from the norm and weighted items were summed to measure frequency of positive and negative off-time change. (Findings for these variables are presented in Tables 2 and 4.) Off-time change in the five life areas was assessed by summing relevant types of positive and negative off-time events. (Tables 3 and 5 report findings for these measures.)

Frequency of general life change (i.e. the number of life events reported) covaried with off-time events. To control the effects of general life change, the sums of unweighted positive and negative events from the off-time events scale were entered into the regression first, followed by measures of positive and negative off-time events.

Dependent Measures

Dependent measures assessed psychological adjustment and life satisfaction. The following two measures were criteria of adjustment:

1. 22-Item Psychiatric Screening Inventory. Level of psychiatric symptomatology is frequently used to measure psychological maladjustment. The Psychiatric Screening Inventory assessed impairment by measuring the number of psychophysical symptoms reported. These included loss of appetite, listlessness, worry, and sleeplessness.

2. Negative Affect Scale. The Negative Affect Scale measures level of negative mood. Five items ask whether the respondent recently felt restless, lonely, bored, depressed or upset by criticism. The number of negative feelings reported is the score on this scale. The Negative

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Affect Scale correlates with other measures that assess psychological disturbances such as anxiety, worry, and physical symptoms.

The following instruments were criteria of life satisfaction:

1. Life #3. Life #3 is a subscale of the Perceived Quality of Life Inventory and assesses satisfaction with life as a whole. The Perceived Quality of Life Inventory measures satisfaction with specific life concerns such as family, work, liesure and health. The Life #3 measure accounts for about 50% of the variance in ratings of satisfaction with life concerns, and is considered a good indicator of satisfaction with life in general.

2. Positive Affect Scale. The Positive Affect Scale measures the respondents level of positive mood. Five items ask about recently experienced pleasurable feelings such as interest, excitement and pride. Positive affect is thought to be related to degree of involvement, interest and perceived mastery over the physical and social environment.

Table 1

Multiple Correlations of PQOL Criteria with Independent Measures of Positive and Negative Events and Positive and Negative Off-Time Events for Two Age Groups

	Age 55-64			Age 65 +		
PQOL Criterion	R	F(4,49)	p<	R	F(4,70)	p<
Life #3	.39	2.2	–	.31	1.91	–
Positive Affect	.49	4.01	.01	.37	2.89	.05
Negative Affect	.49	3.93	.01	.43	4.16	.01
Psychological Symptoms	.46	3.37	.05	.54	7.48	.001

Table 2

Increase in Variance Explained in PQOL by Each of Four Independent Measures of Life Events for Respondents Aged 55 to 64

Positive Affect Life Events Measure	R^2 Increase[a]	df	F	p<
Positive Events [b]	.06	1,52	3.90	–
Negative Events	.02	1,51	1.61	–
Negative Off-Time Events	.06	1,50	4.14	.05
Positive Off-Time Events	.07	1,49	5.16	.05
Negative Affect **Life Events Measure**				
Positive Events	.02	1,52	1.14	–
Negative Events	.001	1,51	.06	–
Negative Off-Time Events	.17	1,50	10.84	.001
Positive Off-Time Events	.04	1,49	2.98	–
Psychological Symptoms **Life Events Measure**				
Positive Events	.01	1,52	.68	–
Negative Events	.003	1,51	.16	–
Negative Off-Time Events	.08	1,50	4.91	.05
Positive Off-Time Events	.11	1,49	6.98	.025

[a] R^2 increase refers to the increase in variance explained by each independent measure over that explained by variables already in the equation.

[b] Unweighted positive and negative events were entered first followed by off-time events. This procedure controls for frequency of life change so that the independent effects of off-time events can be evaluated.

Table 3

Types of Positive and Negative Off-Time Events Associated with PQOL Criteria for Respondents Aged 55 to 64

Positive Affect Type of Off-Time Event	F[a] (1,49)	$p<$
Negative Marriage and Family Events[b]	10.16	.005
Positive Social Status Events	4.22	.05
Negative Affect **Type of Off-Time Event**	**F (1,49)**	**$p<$**
Negative Marriage and Family Events	15.36	.001
Positive Marriage and Family Events	4.49	.05
Psychological Symptoms **Type of Off-Time Event**	**F (1,50)**	**$p<$**
Negative Recreation and Social Participation Events	9.73	.005

[a] F's are presented for partial regression coefficients. These coefficients estimate the variance explained by an independent measure after remaining the effects of other independent variables in the equation.

[b] Unweighted positive and negative events were entered first followed by types of off-time events to control for frequency of life change.

Table 4

Increase in Variance Explained in PQOL by Each of Four Independent Measures of Life Events for Respondents Aged 65 and Older

Positive Affect Life Events Measure	R^2 Increase	df	F	p<
Positive Events	.04	1,73	3.10	–
Negative Events	.04	1,72	3.32	–
Positive Off-Time Events	.05	1,71	4.33	.05
Negative Off-Time Events	.006	1,70	.50	–
Negative Affect				
Life Events Measure				
Positive Events	.01	1,73	.73	–
Negative Events	.06	1,72	4.69	.05
Positive Off-Time Events	.04	1,71	3.23	–
Negative Off-Time Events	.07	1,70	6.13	.025
Psychological Symptoms				
Life Events Measure				
Positive Events	.003	1,73	.22	–
Negative Events	.18	1,72	16.81	.001
Negative Off-Time Events	.09	1,71	9.65	.005
Positive Off-Time Events	.01	1,70	1.09	–

Table 5

Types of Positive and Negative Off-Time Events Associated with PQOL Criteria for Respondents Aged 65 and Above

Positive Affect Type of Off-Time Event	F (1,71)	p<
Positive Recreation and Social Participation Events	4.56	.05
Negative Affect **Type of Off-Time Event**	**F (1,71)**	**p<**
Negative Personal Frustration Events	7.62	.01
Psychological Symptoms **Type of Off-Time Event**	**F (1,69)**	**p<**
Negative Personal Frustration Events	18.83	.001
Negative Social Status Events	5.27	.05
Positive Recreation and Social Participation Events	4.73	.05